

Geum peckii

Status

Federal status: G2 N2, Not listed

NH state status: S2, Threatened

ME state status: Not ranked or listed

This species is found only in New Hampshire and Nova Scotia, and is ranked S2 and listed as threatened or endangered in both locations. A number of the extant occurrences in New Hampshire are ranked A or B and have been documented since the late 1800's. More than half of the extant occurrences have been located since 1990. Several of these are ranked BC, but others are ranked lower or not ranked at all. At least two historic occurrences were searched for in recent years and not found, and one is considered extirpated due to foot traffic. Overall, the status of the species is uncertain. Some populations appear to be doing well and expanding while others may be gone or declining.

The alpine expert panel indicated that the current outcome is between B and C, depending on habitat and location in the WMNF. There is potential for the outcome to move more toward a C in the future with increased impacts from recreational use.

Distribution

This species is nearly endemic in New Hampshire, with 1 documented occurrence in Nova Scotia. In New Hampshire, there are 37 documented occurrences (28 extant, 9 historic) in Sargent's Purchase, Thompson and Meserve, Low and Burbanks, Beans Grant, Beans Purchase, Pinkham's Grant, Chandlers Purchase, Franconia, Bethlehem, Livermore, and Lincoln. All but 2 extant occurrences in Franconia and one extant occurrence in Livermore are on the WMNF.

Habitat

In New Hampshire, *Geum peckii* is primarily a component of the wet meadow/streamside alpine communities, but can also be found in the dry/mesic heath meadow alpine communities. It is relatively abundant in moist alpine meadows and subalpine ravines throughout the Presidential and Franconia Ranges of NH, but occasionally grows on wet rocks in openings at lower altitudes in Coos and Grafton Counties.

Alpine wet meadow and wet ravine conditions provide the moisture levels that are critical for this species. Ice and snow loading is important because it provides protection from harsh winters and fluctuations in spring temperatures. Other species in wet ravine habitats benefit from water and ice movement that reduces competition, but it is unknown if this is true for *Geum peckii*.

In Nova Scotia, it occurs in a bog at sea-level and in nearby depressions with *Sphagnum*.

Limiting Factors

In New Hampshire, *Geum peckii* is threatened by trampling and potential nutrient inputs from overnight visitors to the White Mountains. Hiking and late spring use are probably the most important factors affecting the alpine wet ravine/streamside communities.

Changes to hydrology could pose a threat to this species, but the threat from trampling and other recreational use is greater. Global warming and acid rain may be threats, but it is uncertain how much they impact alpine species, and they are less important than other threats.

Viability concern

Nearly endemic to WMNF; WMNF contains 90% of NH population. Global (G2) and national (N2) ranks and known occurrence on the Forest make this an automatic RFSS for the WMNF.

Management activities that might affect populations or viability

The activity with potential to impact this species that the WMNF has some control over is trampling by hikers and other recreationists. Management that would reduce the density of trails in the alpine zone, help keep hikers on designated trails, and protect rare species from rock and ice climbing impacts would reduce the potential for trampling.

Trail construction or other development in the alpine zone could affect this species if it would directly impact wet ravine habitat, alter the hydrology of a suitable area, or increase human traffic near suitable habitat. Trail maintenance activities could alter habitat suitability or directly impact individuals.

References

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